

$$= 85^{\circ}\text{C} + 0.013\Omega \times 10\text{A} \times 10\text{A} \times 50^{\circ}\text{C}/\text{W}$$

$$= 150^{\circ}\text{C}$$

where Ta max: ambient temperature

Ron max: on-resistance

Io max: current value

Rth (ch-a): thermal resistance between channel and environment.

REMARKS

The present preliminary amendment is submitted to correct for a minor informality in the specification, which is deemed to be self-evident from the original disclosure.

The present application is believed to be in condition for a full and thorough examination on the merits. An early and favorable consideration of the present application is hereby respectfully requested.

Respectfully submitted,

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IN THE SPECIFICATION

Page 8, beginning line 5, delete the existing paragraph and replace it with the following paragraph:

--In this control apparatus, however, the power MOS-FET used as the switching element of on/off control generates much heat. Therefore, it is necessary to perform the radiation design accurately. A channel temperature T_{ch} max of the power MOS-FET is calculated as

$$\begin{aligned} T_{ch \text{ max}} &= (T_a \text{ max}) + (R_{on \text{ max}}) \times (I_o \text{ max}) \\ &\quad \times (I_o \text{ max}) \times R_{th \text{ (ch-a)}} \quad [\dots (10)] \\ &= 85^{\circ}\text{C} + 0.013\Omega \times 10\text{A} \times 10\text{A} \times 50^{\circ}\text{C/W} \\ &= 150^{\circ}\text{C} \end{aligned}$$

where T_a max: ambient temperature

R_{on} max: on-resistance

I_o max: current value

R_{th} (ch-a): thermal resistance between channel and environment.--